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(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1803 Press/Mis.

448-49

Dated 30th July 1872

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Depa tment,
30*th July* 1872.

Read the following papers:—

No. 438. From the Acting Superintending Engineer, 1st Division, to the Acting Chief Engineer for Irrigation and Joint Secretary to Government, Public Works Department, dated Dowlaishweram, 20th May 1872, No. 678.

I HAVE the honour to forward, for your consideration and orders, a sketch map of the Nuggaram Island, together with a survey map and levels of the drainages lately executed, showing the practicability of the scheme I brought to your notice when you lately inspected the locality.

1 Sketch Map.
1 Survey do. despatched by banghy.

2. I have marked on the sketch map the line of canal I would propose to cut to join these drainages, and thus afford at once facilities of water communication to the greater part of the Amalapore Taluq with the Western Delta; a very large trade already exists between these parts of the country, and the cost of transport is very considerably enhanced by having to go partly by land and partly by water, whereas by the proposed canal, which will be tidal and so available throughout the year, the communication is made complete from the port of Bendamoor-lunkah to Nursapore and thence to Mogultoor or to the inland markets of the district; as these drainages, moreover, carry off almost all the waste water from the irrigation and the rainfall of the Nuggaram Island, I am of opinion very little or no artificial supply of water will ever be required to keep them open.

3. The cut required to be made is five miles in length, and if its mean width is made six yards and depth two yards, the cost of excavation, I estimate, will be Rupees 10,000, and this item might be provided from "Repairs, Agricultural," with the approval and sanction of Government. It is, however, necessary to pass an irrigation channel by a syphon sluice to the lands which this canal will cut off from their supply. I have not attempted to estimate for this work until I see the nature of the soil in which we must lay the syphon; its cost, as compared with the irrigated area to be supplied, under any circumstance, cannot be great, as I find from the levels there will be no difficulty in getting ahead of at least 3 feet on the syphon.

No. 119.

No. 438A. *Note by the Acting Chief Engineer for Irrigation.*

IN paragraph 17 of my Note, No. 87 of the 3rd June, on the Central Godavery Delta Project, I stated that inland tidal navigation could probably be provided between the Vasista and Vanitiyam branches of the Godavery, by connecting and improving the two channels which receive the drainage of the Nuggaram Island.

1 Letter.
1 Survey.

2. With his letter No. 678, dated 20th May 1872, the Superintending Engineer of the 1st Division submits a survey, with levels and sections, of the two

drainage channels adverted to, and suggests that they should be connected by a cutting about five miles long, and estimates the probable cost of the work at Rupees 10,000.

3. There will be no difficulty in connecting these channels and rendering them navigable, and if the two branches of the Godavery are thus connected by means of a navigable canal, the Amalapore Taluq, which forms the larger portion of the Central Delta, will be connected with Nursapore, the Oopeeturu, and eventually with Masulipatam by a short direct line, and the navigation by the western bank canal instead of being connected with the Vasista Godavery near Sakinatapilly, as suggested in paragraph 8 of my Note No. 87, may be carried down to, and be connected with, the new line of navigation it is now proposed to construct between the two branches of the Godavery which enclose and form the Nuggaram Island. The bed of the canal should be 4 feet below the level of tidal low water as there will be a tendency to the deposit of silt, especially where the tidal waters meet.

4. It is probable that the new canal and the extension of the western bank canal to meet it will be more costly than the arrangements originally proposed in my No. 87, but the advantages (1) of connecting the Amalapore Taluq with Nursapore, etc., by a short direct line, (2) of improving the drainage of the Nuggaram Island, and (3) of protecting a large area from submersion by salt water and thus rendering it culturable, will more than compensate for the trifling additional outlay of some 15,000 or 20,000 Rupees. I would, therefore, suggest that the Superintending Engineer should be called upon to mature the project for connecting the Vanitiyam and Vasista Godavery by means of a navigable canal as proposed, and for rendering navigable the extension of the western bank canal below the 38½ mile, instead of connecting that canal with the Vasista Godavery as proposed in paragraph 8 of my Note No. 87, an approximate estimate being prepared for the latter scheme to admit of a comparison being made between the cost of the two schemes.

5. The cost of forming the proposed tidal canal between the Vanitiyam and Vasista branches of the Godavery with subsidiary works necessary for the passage of water for irrigation on the south of the canal and for improving the drainage of the Nuggaram Island will probably be double the amount of Rupees 10,000, estimated by the Superintending Engineer, for the connecting link between the existing channels will cross four irrigation channels; it may be possible to connect the latter and to pass them under the proposed canal by a single syphon sluice, and to distribute the water on the south side of the canal. Care must be taken that the syphon sluice is of sufficient capacity to supply not only all the lands now irrigated on the south of the canal, but also those which are irrigable and are likely to be brought under wet cultivation when the water-supply is improved by the completion of the Central Delta project.

6. From an examination of the levels submitted by the Superintending Engineer, it appears that for a distance of about twelve miles along the stream which falls into the Vanitiyam Godavery the country is for the most part below the level of tidal high water; a bank must be formed along the north side of this channel to protect the land from submersion by salt water, while the drainage must be pro-

vided for by sluices with self-acting shutters placed in the bank, which would be formed by spoil taken from the canal, and should be at least 4 feet above tidal high water.

7. From the Vasista Godavery the country falls eastwards, and is above tidal high water for a distance of about three miles; here no embanking will be necessary, and the passage of drainage into the canal may be provided for by small channels without any sluices.

OOTACAMUND,
4th July 1872.

(Signed) R. F. OAKES, Captain, R.E.,
Acting Chief Engineer for Irrigation.

No. 459. ORDER THEREON, 29th July 1872, No. 1,803.

IRRIGATION, No. 26.

THE Government approve of the suggestion that a tidal canal should be formed between the Vanitiyam and Vasista branches of the Godavery by connecting and improving the two channels which receive the drainage of the Nuggaram Island.

2. The Superintending Engineer will provide, in the revised estimate called for in G. O., No. 1,786, dated 26th July 1872, for the Central Delta project, for the works now proposed, submitting at the same time an alternative estimate of the cost of carrying out the suggestions made by the Acting Chief Engineer for Irrigation in paragraph 8 of his Note No. 87, on which the G. O. above quoted was passed.

(True Extract.)

Captain, R.E.,
Acting Joint Secretary to Government.

To the Acting Superintending Engineer, 1st Division.
,, ,, Chief Engineer for Irrigation.

Exd. S. T. Austin.

MEMORANDUM.

REQUESTED for reference the under-mentioned papers

~~[illegible]~~ survey forwarded with this Office No 119 - 4th July - 72 - Sec G.v. 30 July 72 No 1803

OFFICE OF THE CHIEF ENGR. FOR IRRIGATION, P. W. Department,
4th Dec 1872

D.W. Hawkins
Head Clerk.

To

The Registrar of the P.W. Secretariat

Read the [illegible] 1

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION
DOWLAISHWARUM, 20th May 1872.

No. 678

79

From

Lieutenant Col. L. F. Fischer R.E.
Ag. Superintending Engineer
1st Division

To

Major R. F. Oakes R.E.
Ag. Chief Engineer for Irrigation & Joint Secretary to Government P. W. D.
MADRAS

SIR,

I have the honor to forward for your consideration and orders, a Sketch Map of the Nuggarum island, together with a Survey Map and levels of the drainages, lately executed, shewing the practicability of the Scheme I brought to your notice when you lately inspected the locality -

Enclosures Two
1 Sketch Map
1 Survey Map ×

Inspecting Bungalow

2. I have marked on the sketch Map, the line of Canal I would propose to cut to join these drainages, and thus afford at once, facilities of water communication to the greater part of the Amlapore taluq with the Western Delta - a very large trade already exists between these parts of the Country, and the cost of transport is very considerably enhanced by

× Inclosures returned — copy of Survey map kept

by having to go partly by land, and partly by water, whereas by the proposed canal, which will be tidal and so available throughout the year, the communication is made complete from the port of Bendamoor=lunkah to Nursapur and thence to Mogultoor or to the inland Markets of the District; as these drainages moreover carry off almost all the waste water from the irrigation, and the rain fall of the Nuggarum island, I am of opinion very little, or no artificial,+ supply of water will ever be required to keep them open –

+ Certainly not for the Canal will be tidal

3. The cut required to be made is 5 miles in length, and if its mean width is made 6 yards and depth 2 yards, the cost of excavation I estimate, will be Rupees 10000, and this item might be provided from "Repairs A=gricultural" with the approval and sanction of Government – It is however necessary to pass an irrigation channel by a Syphon Sluice

2

Sluice to the lands which this Canal will cut off from their supply — I have not attempted to estimate for this work until I see the nature of the soil in which we must lay the syphon; its cost, as compared with the irrigated area to be supplied, under any circumstance, cannot be great, as I find from the levels, there will be no difficulty in getting a head of at least 3 feet on the syphon.

I have the honorable
Sir
Your Most Obed.t Serv.t

[illegible] Lieut. Col. R.E.

As Superintending Engineer 1st Div.

To the S. Engr 1 Dn
106 - 15 June /72.

1872.

Regr

From

The Superintending Engineer,

First Division.

To Pub:- 301.

The Chief Engineer for Irrigation &
Joint Secretary to Government
MADRAS

Dated 20th May } 1872
Received. 28th " }

No. 678

Enclo. Two

P.W. 3534/72

Subject.

Forwards for consideration and orders a sketch-map of the Nar-garam Island together with a Survey Map & levels of the drainages lately execu-ted, shewing the practicability of the scheme which was brought to his notice when he lately inspected the lo-cality

No. 119

Note by the Ag Chief Engineer for Irrigation
Letter No. 678 of 20th May 1872 from
Superintending Engineer 1st Division

Enclo: 2
1 Letter
1 Survey

In para 17 of my Note No. 87 of the 3rd June on the Central Godavery Delta Project I stated that inland tidal navigation could probably be provided between the Vasista and Vainteyam Branches of the Godavery by connecting & improving the 2 channels which receive the drainage of the Nuggaram Island.

2. With his Letter No. 678 dated 20th May 1872 the Superintending Engineer of the 1st Division submits a Survey with levels & sections of the two drainage channels adverted to & suggests that they should be connected by a cutting about 5 miles long and estimates the probable cost of the work at Rs 10,000.

3. There will be no difficulty in connecting these channels and rendering them navigable

navigable & if the two branches of the Godavery are thus connected by means of a Navigable Canal, the Amalapore talug which forms the larger portion of the Central Delta will be connected with Nursapore the Copectern and eventually with Masulipatam by a short direct line, & the navigation by the Western bank Canal instead of being connected with the Vasista Godavery near Sakinatapilly as suggested in para 8 of my Note No. 87 may be carried down to and be connected with the new line of Navigation it is now proposed to construct between the 2 branches of the Godavery which enclose & form the Nuggaram Island. The bed of the canal should be 4 feet below the level of tidal LW as there will be a tendency to the deposit of Silt, especially where the tidal waters meet.

4 It is probable that the new Canal and the extension of the Western bank canal to meet it will be more costly than the arrangements originally proposed in my No 87 but the advantages (1) of connecting the

Amalapore

Amalapore taluq with Nursapore &c by a short direct line (2) of improving the drain-age of the Nuggaram Island & (3) of protecting a large area from submersion by Salt water & thus rendering it culturable, will mo than compensate for the trifling additional outlay of some 15 or 20000 Rupees, I would therefore suggest that the Superintending Engine should be called upon to mature the Project for connecting the Vainteyam & Vasista Godavery by means of a Navigable Canal a proposed & for rendering navigable the extension of the western bank Canal below the 38½ mile instead of connecting that canal with the Vasista Godavery as proposed in para 8 of my Note No 87 - an approximate estimate being prepared for the latter scheme to admit of a comparison being made between the cost of the 2 schemes. -

5. — The cost of forming the proposed tidal Canal between the Vainteyam & Vasista branches of the Godavery with subsidiary works necessary for the passage of water for Irrigation on the south of the canal and for improving

improving the drainage of the Nuggaram Island will probably be double the amount of Rs 10000 estimated by the Superintending Engineer, for the connecting link between the existing channels will cross 4 Irrigation channels; it may be possible to connect the latter & to pass them under the proposed Canal by a single Syphon Sluice & to distribute the water on the South side of the canal. Care must be taken that the Syphon Sluice is of sufficient capacity to supply, not only, all the lands now irrigated on the south of the canal, but also, those which are irrigable & are likely to be brought under wet cultivation when the water supply is improved by the completion of the Central Delta Project.

5. From an examination of the levels submitted by the Superintending Engineer it appears that for a distance of about 12 miles along the stream which falls into the Vainteyam Godavery the country is for the most part, below the level

of

of tidal H W – a bank must be formed along the North side of this channel to protect the land from submersion by Salt water, while the drainage must be provided for by Sluices with self acting shutters placed in the bank which would be formed by spoil taken from the Canal and should be at least 4 feet above tidal H.W.

7. From the Vasista Godavery the country falls eastwards & is above tidal HW for a distance of about 3 miles, here no embanking will be necessary & the passage of drainage into the Canal may be provided for by small channels without any Sluices.

Ootacamund
4th July 1872

F. Baker Captain R.E.
Ag Chief Engineer for Irrigation

To
The Secretary to Govt
P.W.D.

P. W. D. 1872 Depart.
Fwdo. Procd. of Govt. for July

The Actg. Chief Engr.
for Irrigation
No. 3537.

T.

The Secretary to Govr.
P. Works Dept.

No. 119

Dated 4th
Despd. 5th July 1872
Recd. 22nd

Enclo: 2
No. 1803 - 30th July/72
Note on a letter from the
Supg. Engineer 1st Dn. sub-
mitting a Survey with
levels & sections of the
Vasista & Vainteyam bran[ches]
of the Godavery & suggesting
that they should be con-
nected by a cutting ab[out]
5 miles long & estimating
the probable cost of the
works at Rs 10000.

No. 448

P.W. Dept. 6

No. 1803

Proceedings of the Madras Government
Under date the 30th July 1872

Read the following -

From the actg Chief Engineer for Irrigation (Here enter No 1195/4th July/72)

The Government approve of the suggestion ~~of the Acting Chief Engineer for Irrigation~~ that a tidal Canal should be formed between the Vanitiyam and Vasista branches of the Godavery by connecting and improving the two channels which receive the drainage of the Nuggaram Island.

The Superintending Engineer will provide,

in the revised estimate
called for in G. O. No.
dated for the
Central Delta Project,
now
for the works proposed,
submitting ap.
~~by the Acting Chief~~
~~the same time~~
~~Engineer for Irrigation~~
an alternative
~~in lieu of the double~~
estimate of the
~~lock and channel~~
cost of carrying
~~from the 38½ miles of~~
~~cut the~~ suggestions made by the
~~the Western Bank Canal~~
actg Ch. Eng. for Irrigation in para 8
~~proposed~~, of his note
No. 87 on which G. O. No.
dated was
passed.

G.M.W. [illegible]

26
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8

To
The Supg Engr. 1st Circle
[illegible] Ag Chief Engr. for Irrign.

Ch. 3537½

Govt. of {1872} Madras.

PUBLIC WORKS.

To The Ag Superintending Engr 1st Division

Dated

Recd. Encl. 2

G. O. 5th July 1872, No 1803.

Nos. 4484-45

Tidal Canal. The suggestion of ~~constructing~~ forming a tidal canal between Vanitiyam and Vasista, branches of the Godavery, by connecting and improving the two channels which receive the ~~drainage~~ drainage of the Nuggaram Island, approved, and Supdg Engr furnished with instructions on the subject.